

# DH-IPC-HDBW5449R1-ZE-LED

4MP Full-color Vari-focal Warm LED Dome WizMind Network Camera



**WizMind**

Launched by Dahua Technology, Dahua WizMind is a full portfolio of solutions composed of project-oriented products including IPC, NVR, PTZ, XVR, Thermal and software platform which adopts industry-leading deep learning algorithms. Focusing on customer's requirements, WizMind provides precise, reliable and comprehensive AI solutions for verticals.

## Series Overview

With starlight solution and deep learning algorithm, Dahua WizMind 5 Series network camera has various intelligent functions, including face capture, perimeter protection and people counting, which greatly improve the accuracy of video analysis. The series camera supports dust-proof function, waterproof function and vandal-proof function, complying with the standards of IP67 and IK10 (Supported by some select models).

## Functions

### Full-color

With high-performance sensor and large aperture lens, Dahua Full-color technology can display clear colorful image in the environment of ultra-low illuminance. With this photosensitivity technology, the camera can capture more available light, and display more colorful image details.

### Face Detection

Dahua Face Detection technology can detect the face in the image. With deep learning algorithm, the technology supports detecting, tracking, capturing and selecting the best face image, and then outputs face snapshot.

### Perimeter Protection

With deep learning algorithm, Dahua Perimeter Protection technology can recognize human and vehicle accurately. In restricted area (such as pedestrian area and vehicle area), the false alarms of intelligent detection based on target type (such as tripwire, intrusion, fast moving, parking detection, loitering detection and gathering detection) are largely reduced.

- 4MP, 1/1.8" CMOS image sensor, low illuminance, high image definition
- Outputs max. 4MP (2688 × 1520) @30 fps
- Built-in warm illuminator, and the max. illumination distance is 40 m
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments.
- Rotation mode, WDR, 3D DNR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
- Abnormality detection: Motion detection, privacy masking, no SD card, SD card full, SD card error, network disconnection, IP conflict, and illegal access.
- Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card, built-in Mic and speaker.
- 12V DC/PoE power supply
- IP67, IK10 protection
- SMD Plus



## People Counting

With deep learning algorithm, Dahua People Counting technology can track and process moving human body targets to realize the accurate statistics of enter No., leave No., and In Area No. Working with management platform, it outputs yearly/monthly/weekly/daily reports to meet your requirements.

## Cyber Security

Dahua network camera is equipped with a series of key security technologies, such as security authentication and authorization, access control, trusted protection, encrypted transmission, and encrypted storage, which improve its security defense and data protection, and prevent malicious programs from invading the device.

## Protection (IP67, IK10, wide voltage)

**IP67:** The camera passes a series of strict test on dust and soak. It has dust-proof function, and the enclosure can work normal after soaking in 1 m deep water for 30 minutes.

**IK10:** The enclosure can stand the punch more than 5 times from a 5 kg hammer falling from a height of 40 cm (Impact energy is 20J).

**Wide voltage:** The camera allows  $\pm 30\%$  input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

## Technical Specification

### Camera

Image Sensor	1/1.8"4Megapixel progressive CMOS
Max. Resolution	2688 (H) × 1520 (V)
ROM	128 M
RAM	512 M
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.0005Lux@F1.0
S/N Ratio	>56 dB
Illumination Distance	40m(131.2 ft)
Illuminator On/Off Control	Auto/Manual
Illuminator Number	3(Warm light)
Pan/Tilt/Rotation Range	Pan: 0°–355° Tilt: 0°–80° Rotation: 0°–355°

### Lens

Lens Type	Motorized vari-focal				
Mount Type	φ14				
Focal Length	2.7 mm–12 mm				
Max. Aperture	F1.0				
Field of View	Horizontal: 115°–48° Vertical: 59°–27° Diagonal: 142°–55°				
Iris Type	Auto				
Close Focus Distance	1.75m(5.74 ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	60.4 m (198.2 ft)	24.1 m (79.1 ft)	12 m (39.4 ft)	6 m (19.7 ft)
	T	128.6 m (421.9 ft)	51.4 m (168.6 ft)	25.7 m (84.3 ft)	12.8 m (42.0 ft)

### Smart event

IVS	Abandoned object; missing object
Heat Map	Yes

### Professional, intelligent

IVS (Perimeter Protection)	Tripwire; intrusion; fast moving (the three functions support the classification and accurate detection of vehicle and human); loitering detection; people gathering; parking detection
Face Detection	Face detection; track; optimization; snapshot; face enhancement; face exposure; face matting setting; face, single inch photo; three snapshot methods: real-time snapshot, optimization snapshot, quality priority; face angle filter; optimization time setting

### People Counting

Support the counting of enter number, leave number and pass number, and displaying and outputting yearly/ monthly/weekly/daily reports Support the counting of number in area, and 4 rules configuration Count number of people or stay time and link alarm Support queue management, and 4 rules configuration. Count number of people or stay time and link alarm

### Intelligent Search

Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos.

### Video

Video Compression	H.265; H.264; H.264H; H.264B; MJPEG (only supported by the sub stream)
Smart Codec	Smart H.265+/Smart H.264+
Video Frame Rate	Main stream 2688 × 1520 (1 fps–25/30 fps) 2560 × 1440 (1 fps–25/30 fps) Sub stream 704 × 576@1–25 fps/704 × 480@1–30 fps Third stream (1920 × 1080 @1-25/30 fps)
Stream Capability	3 streams
Resolution	4M (2688 × 1520); 4M (2560 × 1440); 3M (2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 32 kbps–8192 kbps H.265: 12 kbps–8192 kbps
Day/Night	Color/B/W
BLC	Yes
HLC	Yes
WDR	140 dB
Scene Self-adaptation	Yes
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom
Gain Control	Auto/Manual
Noise Reduction	3D DNR
Motion Detection	OFF/ON (4 areas)
Region of Interest (RoI)	Yes (4 areas)
Defog	Yes
Image Rotation	0°/90°/180°/270°
Mirror	Yes
Privacy Masking	4 areas

### Audio

Built-in MIC	Yes
Audio Compression	PCM; G.711a; G.711Mu; G.726; AAC; G.723

## Alarm

Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; voltage detection; motion detection; video tampering; scene changing; audio detection; intrusion; tripwire; fast moving (the three functions support the classification and accurate detection of vehicle and human); abandoned object; missing object; loitering detection; people gathering; parking detection; people counting; face detection; SMD
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## Network

Network	RJ-45 (10/100 Base-T)
SDK and API	Yes
Cyber Security	Video encryption; firmware encryption; configuration encryption; Digest; WSSE; account lockout; security logs; IP/MAC filtering; generation and importing of X.509 certification; syslog; HTTPS; 802.1x; trusted boot; trusted execution; trusted upgrade
Protocol	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; SNMP
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; Milestone; Genetec; P2P
User/Host	20 (Total bandwidth: 80 M)
Storage	FTP; SFTP; Micro SD card (support max. 256 G); NAS
Browser	IE: IE8, IE9, IE11 Chrome Firefox
Management Software	Smart PSS; DSS; DMSS
Mobile Client	IOS; Android

## Port

Audio Input	1 channel (RCA port)
Audio Output	1 channel (RCA port)
Alarm Input	1 channel in: 5mA 3V–5V DC
Alarm Output	1 channel out: 300mA 12V DC

## Power

Power Supply	DC12V/PoE (802.3af)
Power Consumption	Basic: 2.2W (12 V DC); 2.8 W (PoE) Max. (H.265+Face detection+LED on): 9.5 W (12V DC); 10.5 W (PoE)

## Environment

Operating Conditions	–30°C to +60°C (–22°F to +140°F)/Less than 95% RH
Storage Conditions	–40°C to +60°C (–40°F to +140°F)
Protection Grade	IP67; IK10

## Structure

Casing	Metal
Dimensions	105 mm × Φ126 mm (4.1" × Φ5.0")
Net Weight	716.4 g (1.6 lb)
Gross Weight	929.7 g (2.0 lb)

## Ordering Information

Type	Part Number	Description
4MP Camera	DH-IPC-HDBW5449R1P-ZE-LED	4MP Full-color Vari-focal Warm LED Dome WizMind Network Camera, PAL
	IPC-HDBW5449R1P-ZE-LED	4MP Full-color Vari-focal Warm LED Dome WizMind Network Camera, PAL
Accessories (optional)	PFA137	Junction Box
	PFA200W	Rain Shade
	PFB203W	Wall Mount
	PFA152-E	Pole Mount
	PFA109	Mount Adapter
	PFB220C	Celling Mount
	PFM321D	12V DC/1A Power Adapter
	LR1002-1ET/1EC	Single-port Long Reach Ethernet over Coax Extender
	PFM900-E	Integrated Mount Tester
	PFM114	TLC SD Card

## Accessories

### Optional:



PFA137  
Junction Box



PFA200W  
Rain Shade



PFB203W  
Wall Mount



PFA152-E  
Pole Mount



PFA109  
Mount Adapter



PFB220C  
Celling Mount



PFM321D  
DC12V1A Power  
Adapter



LR1002-1ET/1EC  
Single-port long  
reach ethernet over  
coax extender



PFM900-E  
Integrated Mount  
tester



PFM114  
TLC SD card

Junction Mount	Wall Mount	Wall Mount
Ceiling Mount	Pole Mount (Vertical)	

### Dimensions (mm/inch)

